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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,107	12/17/2001	Sami Haapoja	872.0105.U1(US)	3127

29683 7590 11/15/2005

HARRINGTON & SMITH, LLP  
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SHELTON, CT 06484-6212

EXAMINER

JAMAL, ALEXANDER

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/024,107

Applicant(s)

HAAPOJA ET AL.

Examiner

Alexander Jamal

Art Unit

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**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 27 October 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see response to arguments.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

**CURTIS KUNZ**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

***Response to Arguments***

1. Applicant's arguments filed 10-27-2005 have been fully considered but they are not persuasive.

As per applicants argument that Shalom does not disclose compensating for non-ideal operation of an RF filter, and that it would have not been obvious to apply the teachings in both the forward and reverse directions, the examiner contends that a power amplifier, feedforward amplifier and their associated components all comprise RF filters. A filter is a frequency response, or, a set of amplitudes assigned to a set of frequencies. A power amplifier and associated components will have a characteristic impedance that defines a frequency response (in this case an RF frequency response). Shalom is directed at using an equalizer to correct phase and gain distortions (non-linearities) of the power amplifier which comprises an RF filter defined by the input impedance of the power amplifier. Examiner maintains that one skilled in the art would have motivation to apply Shalom's teachings to amplifiers in both directions. Shalom teaches a basic and well known concept that equalization can be used to compensate for non—ideal operation of components. Making any component in a system operate ideally is a motivation known by any person skilled in the art of designing any sort of system. Shalom teaches that equalizers may be used to compensate for non-ideal operation of power amplifiers and their associated frequency response (filter).

As per applicant's arguments concerning the Abdelmonem reference not disclosing all elements of the independent claims (remarks page 8), examiner notes that the HTS filter of Abdelmonem is an RF filter and that Abdelmonem further discloses an

equalizer be used to compensate for non-ideal operation of said filter. Again

Abdelmonem is teaching the same concept of compensating as disclosed by Shalom only for a different component in the receive direction as opposed to the transmit direction.

Upon further reconsideration examiner notes that, even if applicant were to disqualify the Abdelmonem reference or the Shalom reference, the other reference could be used to teach the well known concept of compensating for non-ideal operation of components in a transceiver circuit (in either direction).

As per applicant's arguments that none of the references teach compensating responsive to the currently selected RF channel, examiner reiterates the response sent in the final office action (8-24-2005), and equalizer inherently (by definition) comprises a set of amplitude/phase responses at given frequencies. Since all three prior art references disclose channels with varying frequencies, any compensating equalizer will selectively compensate for the input channel by the fact that the particular frequency of the currently input channel will be compensated with the amplitude/phase component that is associated with the corresponding equalizer frequency. The channel frequency (and as such, the amplitude response of the equalizer) is responsive to the currently selected (input) RF channel. Examiner further notes that all three independent claims (and various dependant claims) claim compensating (equalizing) channels over the full bandwidth of the system (at least one RF transmit or receive channel). An equalizer will selectively compensate all channels, including the specific channels mentioned in applicant's claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 571-272-7498. The examiner can normally be reached on M-F 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 571-272-7499. The fax phone numbers for the organization where this application or proceeding is assigned are **571-273-8300** for regular communications and **571-273-8300** for After Final communications.

AJ  
November 9, 2005

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
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